

134. *Tisa variabilis* (Temminck).

Dr. Ijima (p. 116) mentioned this bird from Iki Island, and Seebohm (Ibis, 1892, p. 94) reported it from Tsushima.

The following species are said to have occurred on Tsushima:—

Dryobates sp.? Mr. Utano's information.

Pica pica sericea Gould. A wanderer from Corea.

Icturus akahige (Temm.). Mr. Utano's information.

Sitta europæa L. [subsp.?]. Mr. Teraoka met with a Nuthatch.

III.—A short systematic review of the African Francolins.

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THE following is a short review of the Francolins of Africa with particular regard to their distribution and geographical races. I have attempted no identifications of the various species, for their distinctions are in the majority of cases well known, and can be found in any work on the subject. I have, however, indicated the racial differences. The group has not been treated of trinomially before in anything like its entirety, and it will be found that I have adopted a wide view of what constitutes a species.

The material I have had before me has been large, for not only have I had the opportunity of examining that in the British Museum and in Lord Rothschild's Museum at Tring, but also the private collections of Sir Geoffrey Archer, Col. S. R. Clarke, Sir Frederick Jackson, and some part of that of Dr. V. G. L. Van Someren. To all these gentlemen I am greatly indebted. It will be noticed that I have stated under each species the number of specimens examined, and also where they are to be met with, the latter a point of some importance to anyone wishing to know where to find the necessary material for further study of the group. All measurements I have given are those taken by myself, and the localities given in the range of a species are, in most

cases, only those from which I have actually examined specimens.

In Game-Birds such as Francolins, with but short powers of flight, quite small natural features may be hard and fast boundaries, and this naturally leads to the multiplication of racial forms. I have described some few of the most distinct of those which had not been recognised in the Bull. B. O. C. 1920 and elsewhere, but a large number I have merely indicated in this paper. I consider it very desirable that not only should a representative series be at hand before a race is named, but also that some knowledge of its range should be obtained.

I have left all the African Francolins in one genus, though I do not consider it by any means the most correct arrangement, nor must the order in which the species are taken in this paper be considered as reflecting any opinion as to their relationship. Francolins are not easy birds to collect, as the services of a dog are not usually available, and moreover, when secured they too frequently go straight into the pot. This may account for the fact that several species are known either from a single specimen, or have not been met with since their first discovery.

The measurements in all cases are in millimetres.

1 A. *Francolinus lathami lathami* Hartl.

Francolinus lathami Hartlaub, J. f. O. 1884, p. 210 : Sierra Leone.

Francolinus peli Temm. Bijdr. tot de Dierk. i. 1854, p. 50 : Dabocrom, Gold Coast.

Wing-measurements : ♂ 140–149 ; ♀ 132–141.

Specimens 51. Brit. Mus. 33. Tring 15. S. R. Clarke 3.

Range. From Gambia through the Gold Coast to Cameroon, Gaboon, and probably part of the Belgian Congo.

1 B. *Francolinus lathami schubotzi* Reichw.

Francolinus lathami schubotzi Reichw. J. f. O. 1912, p. 320 : Welle River.

Males similar to those of *F. l. lathami*, but spotting on neck and breast smaller, cheeks whiter, less grey, and abdomen

whiter and more distinctly barred, less brown. Females have a redder tone all over, and the sides of the neck brownish red, not grey. Wings: ♂ 146-150; ♀ 141-148.

Specimens 15. Brit. Mus. 2. Tring 5. Dr. Van Someren 6. Sir F. Jackson 2.

Range. Forests of the Upper Congo watershed and Uganda.

2. *Francolinus nahani* Dub.

Francolinus nahani Dubois, Ann. Mus. Congo, i. 1905, p. 17, pl. x.: Ituri River, Congo.

No known races; the sexes are alike and not unlike the males of *F. lathamii* on the underside, but the breast streaked and not spotted. For description of both sexes see Van Someren, Ibis, 1916, p. 220. This species inhabits the same forests as *F. l. schubotzi* in some cases. Wings: ♂ 141-149; ♀ 137-144.

Specimens 16. Brit. Mus. 2. Sir F. Jackson 12. Dr. Van Someren 2.

Range. So far known only from the forests of Uganda and the Ituri River.

3 A. *Francolinus coqui coqui* (Smith).

Perdix coqui Smith, Report Exped. Centr. Afr. 1836, p. 55: Kurrichaine.

Francolinus subtorquatus Smith, Illustr. Zool. S. Afr. 1838, pl. 15 (renaming of above).

? *Francolinus stuhlmanni* Reichw. J.f. O. 1889, p. 270: Usegua.

I cannot separate typical South African specimens from those of Nyasaland, Kenya Colony, or Tanganyika Territory. *Francolinus stuhlmanni* Reichw. is said to have the tail-coverts redder and unbarred, but we have no specimens with those characteristics. Wings: ♂ 137-145; ♀ 126-138.

Specimens 66. Brit. Mus. 53 (type). Tring 9. Sir F. Jackson 1. S. R. Clarke 2. Dr. Van Someren 1.

Range. South Africa north to Rhodesia and Nyasaland, and through Tanganyika Territory to the eastern half of Kenya Colony.

3 B. *Francolinus coqui*, subsp. 1.

Birds from the northern part of Portuguese East Africa are possibly separable by their paler colour, and this is particularly noticeable on the breasts of the females. Wings as in the typical race.

Specimens 4. Brit. Mus. 3. Tring 1.

Range. Mozambique.

3 C. *Francolinus coqui angolensis* Rothschild.

Francolinus coqui angolensis Rothschild, Bull. B. O. C. xii. 1902, p. 76: Bailandu, Angola.

Occasionally though not invariably more heavily barred on the underside than the typical race, but always with greyer, less brown wing-coverts. Wings: ♂ 140-148; ♀ 131-133.

Specimens 7. Tring 7 (type).

Range. Angola.

3 D. *Francolinus coqui*, subsp. 2.

Birds from S.W. Uganda appear to be not quite typical, being rather bright coloured and with white not buff throats. Wings as in the typical race.

Specimens 12. Brit. Mus. 7. Sir F. Jackson 5.

Range. South-western Uganda.

3 E. *Francolinus coqui hubbardi* O.-Grant.

Francolinus hubbardi Ogilvie-Grant, Bull. B. O. C. iv. 1895, p. xxvii: Nassa, Victoria Nyanza.

This may very well prove to be a distinct species. It differs from all other races of *F. coqui* in having an unbarred lower breast and belly. Wings: ♂ 140-153; ♀ 137-141.

Specimens 24. Brit. Mus. 9 (type). Sir F. Jackson 10. Dr. Van Someren 2. Tring 2. S. R. Clarke 1.

Range. From the shore of Victoria Nyanza eastwards to about Naivasha in Kenya Colony.

3 F. *Francolinus coqui schlegeli* Heugl.

Francolinus schlegelii Heuglin, J. f. O. 1863, p. 275: Bongo River, Bahr el Ghazal.

A drawing of the type of this Francolin is in the British Museum, and shows a bird very similar to *F. c. coqui* except that the shoulders and wing-coverts are uniform light reddish brown, and the barring on the underside is somewhat finer. This bird has never been rediscovered, and only one specimen appears to be in existence.

Specimens; none examined.

Range. Bahr el Ghazal (? formerly).

3 G. *Francolinus coqui buckleyi* O.-Grant.

Francolinus buckleyi Ogilvie-Grant, *Ibis*, 1892, p. 41 : Accra, Gold Coast (ex Shelley MSS.).

There is considerable doubt as to what the birds named above are. All our specimens are females and they are like *F. c. coqui*, except that the barring on the underside is less in extent and much finer. They may be the females of *F. c. schlegeli*, for the female of that race is unknown. They may be a distinct race of *F. coqui*, as named above. They may also be, as Dr. Hartert has suggested, females of *F. alboocularis* Gray. With regard to that I can only say that there are in the British Museum females of *F. alboocularis* which are exactly like the males, and also females which approach these birds very closely. It is a very pretty problem and one which the field-naturalist must settle. Wings of above specimens: ♀ 124-128.

Specimens 4. Brit. Mus. 3 (types). Tring 1.

4. *Francolinus streptophorus* O.-Grant.

Francolinus streptophorus Ogilvie-Grant, *Ibis*, 1891, p. 126 : Mt. Elgon.

No races distinguished. Some specimens, notably from Kavirondo, are very grey, but it does not seem a constant local character. Wings: ♂ 152-161; ♀ 152-158.

Specimens 21. Brit. Mus. 4 (type). Sir F. Jackson 10. Tring 3. S. R. Clarke 3. Dr. Van Someren 1.

Range. From Mt. Elgon to the Kavirondo country of Kenya Colony and to Acholi in Uganda.

5. *Francolinus sephæna*.

Under this heading come a large group of Francolins which extend over most of southern and eastern Africa. They show considerable local variation, and as in many groups, the names bestowed on them in various places do not by any means correspond to the most clearly marked differences of plumage. They appear to be best grouped as follows:—

5 A. *Francolinus sephæna sephæna* (Smith).

Perdix sephæna Smith, Report Exp. Centr. Africa, 1836, p. 55: Marikwa, *i. e.* Marico River, Transvaal.

Francolinus pileatus Smith, Illustr. Zool. S. Africa, 1838, pl. 14 (renaming of above).

The largest race of the group. Wings: ♂ 162–172; ♀ 156–162. There is one remarkably small specimen in the Tring Museum, a male with a wing of 156.

Specimens 18. Brit. Mus. 11 (type). Tring 7.

Range. Transvaal, Bechuanaland, Lake Ngami, etc.

5 B. *Francolinus sephæna zambesiæ*.

Francolinus sephæna zambesiæ Praed, Bull. B. O. C. xl. 1920, p. 140: Mesanangue, Zambesi River.

Very like preceding race in colour, but smaller.

Wings: ♂ 153–159; ♀ 148–155.

Specimens 8. Brit. Mus. 8 (type).

Range. Zambesia, *i. e.* inland and northern Portuguese East Africa and the adjoining parts of Rhodesia.

5 c. *Francolinus sephæna*, subsp. 1 & 2.

There are two birds at Tring and one in the British Museum from the South-West African Protectorate, and they differ considerably from one another. I am inclined to think that more material will show that there are two races in that part of Africa, a northern extending into Angola, and a southern from Damaraland.

These southern races of *F. sephæna* all stand apart from the eastern and north-eastern forms in that the breast is spotted and not only the neck.

5 D. *Francolinus sephæna rovuma* Gray.

Francolinus rovuma Gray, List Gall. Brit. Mus. 6 Mch. 1867, p. 52: Rovuma River.

Francolinus kirkii Hartlaub, P. Z. S. 14 Nov. 1867, p. 827: Zanzibar.

Spotting confined to the throat. Feathers of flanks and belly with strong longitudinal chestnut stripes on the end of the shaft. A very dark coloured race with blackish patches on the back. Should this form ever be found within the limits of the previously mentioned races—and I do not consider it impossible—then those races must be treated as a distinct species-group.

Specimens 11. Brit. Mus. 5 (2 types). Dr. Van Someren 6.

Range. Coasts of Tanganyika Territory and northern Portuguese East Africa.

Note.—This race has been unfortunate in its choice of type-localities. Gray founded his *F. rovuma* on specimens of two races, one from 'Rovuma,' the other a bird labelled 'E. Africa,' which looks like an inland race. However, the Rovuma specimen can be taken as the type, and the name, which has eight months' precedence of Hartlaub's, can stand. Hartlaub chose as his type-locality Zanzibar, but the bird does not apparently occur there at the present day, and there are some doubts as to whether it ever did.

5 E. *Francolinus sephæna granti* Hartl.

Francolinus granti Hartlaub, P. Z. S. 1865, p. 665: Unjamwezi, Tanganyika Territory.

Francolinus ochrogaster Hartlaub, J. f. O. 1882, p. 327: Upper Nile.

Francolinus granti delutescens Mearns, Smiths. Misc. Coll. lvi. 1911, No. 20, p. 3: Base of Mt. Kenya.

It is very difficult indeed to say what local forms are worthy of recognition within eastern and east-central Africa. The one thing is certain that the greater the material the less does any given character appear locally constant. I personally propose to unite under the above heading all birds from the northern half of Tanganyika Territory, all

birds from Kenya Colony, except the most northern and coastal portions, and all from Uganda and the Lado Enclave.

This race is characterised by being ochreous beneath with various degrees of mottling, and in the coastal part of its range it has occasional longitudinal chestnut stripes reminiscent of, though never as definite as, *F. s. rovuma*. Wings: ♂ 140-148; ♀ 132-145.

Specimens 64. Brit. Mus. 27. Tring 10. Sir F. Jackson 10. Dr. Van Someren 12. S. R. Clarke 5.

Range. As above.

5 F. *Francolinus sephæna*, subsp. 3.

This is a small pale desert race of which the distribution is as yet ill-defined. It is the palest form known, but I have not sufficient material to justify naming it. It has never any sign of striping on the underside. Wings: ♂ 140-148.

Specimens 6. Brit. Mus. 2. Sir F. Jackson 3. S. R. Clarke 1.

Range. Northern Guaso Nyiro to Marsabit and westwards to south of Lake Rudolf.

5 G. *Francolinus sephæna*, subsp. 4.

This is a larger race and has consistent though narrow striping on the underside. It is obviously an intermediate race between the last and *F. s. spilogaster* of Somaliland and eastern Abyssinia, and as such it appears hardly worthy of a name. Wings: ♂ 149-160; ♀ 138-140.

Specimens 7. Sir F. Jackson 7.

Range. At present only known from the extreme northern boundary of Kenya Colony (Moyale, Wajbeir, etc.). It will probably be found to extend northwards and grade into *F. s. spilogaster* Salvadori.

5 H. *Francolinus sephæna jubaënsis* Zedlitz.

Francolinus sephæna jubaënsis Zedlitz, Orn. Monats. 1913, p. 59: Afgoi, southern Italian Somaliland.

The smallest form of *F. sephæna*. It is scarcely separable in colour from *F. s. granti*, though as a rule it is somewhat greyer on the back. Little or no signs of striping on the

underside. At its southern limit near Lamu it appears to be found together with typical *F. s. granti*, and they no doubt intergrade. Wings: ♂ 135-142; ♀ 130-136.

Specimens 14. Brit. Mus. 4. Dr. Van Someren 8. Sir F. Jackson 1. Tring 1.

Range. Coast of southern Italian Somaliland and as far south as Lamu.

5 I. *Francolinus sephæna schoanus* Heugl.

Francolinus schoensis Heuglin in Petermann's Mittheil. 1869, p. 415: Shoa (nom. nud.).

Francolinus schoanus Heuglin, Orn. Nord-Ost-Afr. iii. 1873, p. 891: Shoa.

Size larger than in *F. s. granti*, but otherwise apparently indistinguishable. Never any striping beneath. Wings: ♂ 147-156; ♀ 147-8.

Specimens 30. Brit. Mus. 14. Tring 16.

Range. Most of Abyssinia, except the eastern portion.

5 J. *Francolinus sephæna spilogaster* Salvadori.

Francolinus spilogaster Salvadori. Ann. Mus. Civ. Genova. vi. 1888, p. 541: Harar.

A still larger race and almost invariably striped on the underside. The only specimens lacking stripes are some collected by Sir G. F. Archer at the summit of the Goolis Range in British Somaliland. Wings: ♂ 155-165; ♀ 149-158.

Specimens 28. Brit. Mus. 16. S. R. Clarke 7. Sir G. F. Archer 4. Tring 1.

Range. Harar and eastern Abyssinia, and British Somaliland.

6. *Francolinus icteropus* Heugl.

Francolinus icteropus Heuglin, Sitzb. Ak. Wien, 1856, p. 303 (nom. nud.); J. f. O. 1862, p. 412 (1st descr.): Southern slopes of the high mountains of Semien. alt. 10,000-11,000 ft.

Francolinus icteropus Hartlaub, P. Z. S. 1865, pl. 39.

This species is only known from the type, which has

apparently been lost, and from the plate in the Proc. Zool. Soc. 1865. The plate shows a bird of something of the nature of *F. sephæna*, but which is too distinct to be considered a race of it. The striping on the underside is most pronounced and is continued in the form of spots and horse-shoes on to the flanks. The plate is based on an original drawing by Heuglin.

Specimens. None now in existence.

Range. Mountains of Semien, northern Abyssinia.

7 A. *Francolinus albogularis albogularis* Gray.

Francolinus albogularis Gray, List Gall. iii. 1844, p. 35 : Gambia (nom. nud.) ; Hartlaub, J. f. O. 1854, p. 210 (1st descr.).

A paler race, breast pale yellow-buff with traces of black cross-bars on the feathers. Wings: ♂ ♀ 129–133.

Specimens 6. Brit. Mus. 5 (type). Tring 1.

Range. Gambia, and probably southwards to the limits of the next race.

7 B. *Francolinus albogularis gambagæ* Praed.

Francolinus albogularis gambagæ Praed, Bull. B. O. C. xl. 1920, p. 140 : Gambaga, Gold Coast Hinterland.

Like the last race, but with the throat and breast feathers strongly edged with rufous, and with more rufous above and below the eye. Wings: ♂ ♀ 125–135.

Specimens 10. Brit. Mus. 8 (type). Tring 2.

Range. Gold Coast Hinterland and parts of Northern Nigeria.

Note.—The sexes of *F. albogularis* are apparently alike, but see remarks under *F. coqui buckleyi*.

8. *Francolinus africanus*.

Under this heading come a large and varied group of Francolins extending from the Cape to Eritrea. I have refrained from naming any more races, but I expect that with more material South African ornithologists will recognise two or three races within the Union, and more may probably be found in the northern part of their range. The northern group is at first sight very distinct by reason of their plainer

undersides, but on examination they are found to grade into forms as heavily marked beneath as the typical race. Over most of its range, this is a high-ground Francolin.

8 A. *Francolinus africanus africanus* Steph.

Perdix afra Lath. (nec Müll.) Ind. Orn. ii. 1790, p. 648 : Cape of Good Hope.

Perdix perlata Temm. Pig. et Gall. iii. 1815, pp. 326, 721 (part).

Francolinus africanus Steph. in Shaw's Gen. Zool. xi. 1819, p. 323 : country of the Hottentots, *i.e.* Western Cape Province.

A rather dull coloured and small race, with the under-surface of dingy-white and black, and the white, irregular, not in round spots. Wings: ♂ 151-157; ♀ 145.

Specimens 4. Brit. Mus. 4.

Range. Confined to the Knysna, Cape Town, and Stellenbosch districts.

8 B. *Francolinus africanus*, subsp. 1.

Somewhat similar in colour to the typical race, but rather more sharply marked and considerably larger. Wings: ♂ 163-168; ♀ 159-163.

Specimens 13. Brit. Mus. 13.

Range. Deelfontein and central Cape Province.

8 C. *Francolinus africanus*, subsp. 2.

Considerably greyer and cleaner on both upper and under surfaces. Underside marked in clean white and black and the white mainly in round spots. Wings: ♂ 167; ♀ 165-167.

Specimens 3. Brit. Mus. 3.

Range. Little Namaqualand.

8 D. *Francolinus africanus*, subsp. 3.

A good deal yellower on both surfaces than any of the preceding races. In young birds this characteristic is very marked, and the most eastern, *i.e.* Natal, birds are the yellowest of all. Wings: ♂ 158-163; ♀ 158-159.

Specimens 9. Brit. Mus. 7. S. R. Clarke 2.

Range. Transvaal, Orange Free State Province, and Natal.

8 E. *Francolinus africanus uluensis* O.-Grant.

Francolinus uluensis Ogilvie-Grant, Ibis, 1892, p. 44 :
Ulu country, Kenya Colony.

There is a large gap in the distribution of *F. africanus*, this race being separated from the last by a very wide area from which the species has not been reported. In plumage, however, this race is on the upperside almost indistinguishable from the typical race, while below the breast is more heavily barred and spotted, and the edges of the feathers are mottled, not plain blue-grey. Wings: ♂ 159-166; ♀ 157-165.

Specimens 32. Brit. Mus. 12 (type). Sir F. Jackson 4. S. R. Clarke 5. Tring 9. Dr. Van Someren 2.

Range. Kenya Colony, mainly the highlands, but has been reported from the Taveta country at the base of Kilimanjaro.

8 F. *Francolinus africanus lorti* Sharpe.

Francolinus lorti Sharpe, Ibis, 1898, p. 425, pl. x.: Wagga, Somaliland.

At first sight this bird appears to belong to quite a different group, but on examination it becomes clear that the difference is merely due to the fact that the mottling and cross-barring of the breast-feathers have become obsolete, and only the longitudinal streaks are left. Throat white. Wings: ♂ 159-173; ♀ 165-170.

Specimens 12. Brit. Mus. 3 (type). Sir G. F. Archer 5. S. R. Clarke 4.

Range. Golis Range and Warsangli country of British Somaliland. Now very rare, if not extinct, in the former locality. The Warsangli birds are whiter on the underside than the type, but this may be due to the freshness of the skins.

8 G. *Francolinus africanus gutturalis* (Rüpp.).

Perdix gutturalis Rüpp. Neue Wirb. 1835, p. 13: Halai, Axum, Temben in Tigré, N. Abyssinia.

Above not unlike *F. a. lorti*, but below more strongly marked, with more red on the feathers of the breast and

sides and with the black striping much stronger. Throat slightly spotted. Wings: ♂ 165-170; ♀ 158-165.

Specimens 7. Brit. Mus. 7.

Range. Tigré, N. Abyssinia.

8 H. *Francolinus africanus eritreæ* Zedl.

Francolinus gutturalis eritreæ Zedlitz, J. f. O. 1910, p. 357: Asmara, Eritrea.

Closely allied to the last race. I have seen no examples from the type-locality and so cannot say how well marked the differences may be. Three birds from Keren in the Tring Museum I cannot differentiate from *F. a. gutturalis*. For details and distinctions see Zedlitz, *op. cit.*

Specimens. None examined.

Range. Eritrea.

8 I. *Francolinus africanus spilolæmus* Gray.

Francolinus psilolæmus Gray, List Gall. 1867, p. 50: Shoa.

This race resembles *F. a. gutturalis*, but the black markings on the feathers of the underside are replaced by broad red ones. Throat closely spotted. Wings: ♂ 164-167; ♀ 164.

Specimens 5. Brit. Mus. 5 (type).

Range. Shoa.

8 J. *Francolinus africanus ellenbecki* Erl.

Francolinus africanus ellenbecki Erlanger, J. f. O. 1905, p. 151: S. Arussi-Gallaland.

Said to be like the last race, but to be greyer, less brown above, and darker grey below. Size apparently similar.

Specimens. None examined.

Range. South Arussi-Gallaland to the Boran country.

9 A. *Francolinus castaneicollis castaneicollis* Salvad.

Francolinus castaneicollis Salvadori, Ann. Mus. Civ. Genova, 1888, p. 542: Lake Ciar Ciar = Chercher, Shoa.

It is unfortunate that the type of this species came from Lake Chercher as that locality is on the dividing line of two races, the Lake District birds and the Harar district birds. It is therefore difficult to say to which the name should be

more properly assigned. I have here kept it distinct from both races, but I am inclined to think that it will eventually replace *F. c. bottegi* Salvad. from the Lake District. Unfortunately there is only one specimen available from Lake Chercher. Wing: ♀ 192.

Specimens 1. Brit. Mus. 1.

9 B. *Francolinus castaneicollis bottegi* Salvad.

Francolinus bottegi Salvadori, Ann. Mus. Civ. Gen. 1898, p. 652: Burgi in Badditu.

Closely allied to the last race and possibly identical. It appears, however, to be brighter above and duskier below than in our single specimen of the typical race. Wings: ♂ 215-232; ♀ 192-196.

Specimens 9. Tring 9.

Range. Badditu and Djam-Djam on the south-eastern side of the Abyssinian Lake District.

9 C. *Francolinus castaneicollis*, subsp. 1.

This is the other race to which the name '*castaneicollis*' may possibly apply. It differs from the Badditu birds by having less white marking on the back, and the upperside is generally duskier and less brown, while the chestnut of the neck is somewhat paler. Wings: ♂ 220-228; ♀ 188-198.

Specimens 4. Brit. Mus. 4.

Range. Harar district eastwards, where it merges into the next race.

9 D. *Francolinus castaneicollis ogoënsis* Praed.

Francolinus castaneicollis ogoënsis Praed, Bull. B. O C. xl. p. 141: Sheikh Pass, Ogo, British Somaliland.

Differs from all other races of *F. castaneicollis* by the pronounced greyness of the upperside, the feathers of the mantle being paler and the chestnut of the neck duller, almost grey-brown. Wings: ♂ 212-222; ♀ 188-192.

Specimens 14. Sir G. F. Archer 6. S. R. Clarke 6 (type). Tring 2.

Range. British Somaliland.

9 E. *Francolinus castaneicollis gofanus* Neum.

Francolinus castaneicollis gofanus Neum. J. f. O. 1904, p. 353: Gadat, in Gofa.

A very dark and richly-coloured race. Head bright chestnut, rump and upper tail-coverts particularly dark. Wings: ♂ 220-229; ♀ 195-205.

Specimens 13. Tring 10 (type). Brit. Mus. 3.

Range. Gofa and Kullo, to the north-west of the Abyssinian Lake District.

9 F. *Francolinus castaneicollis*, subsp. 2.

This is a very distinct-looking form, and I regret that I have not enough material to justify naming it. A bright chestnut head as in the last race, but the back almost plain olive-brown. Pale feathers of underside yellowish, not white. Female—possibly not adult—like the male but duller, with the back greyer and more mottled, and the feathers of the underside with little or no red and with large grey centres. Wings: ♂ 226 (worn); ♀ 183 (*via ad?*).

Specimens 2. S. R. Clarke 2.

Range. South-western Abyssinia, west of the range of the last race. These two specimens came from 'Margee.'

10 A. *Francolinus shelleyi shelleyi* O.-Grant.

Francolinus shelleyi Ogilvie-Grant, Ibis, 1890, p. 348: Umvuli River, Mashonaland.

I cannot see any distinction between birds from the Transvaal, Nyasaland, or southern Uganda. *F. shelleyi* is a low-ground bushveld bird, which is naturally less likely to vary than a bird which is confined to isolated patches of high ground. Wings: ♂ 163-182; ♀ 162-170.

Specimens 39. Brit. Mus. 33 (type). Tring 6.

Range. Mashonaland, Natal, Zululand, southern Nyasaland, most of Rhodesia and south-western Uganda.

10 B. *Francolinus shelleyi trothæ* Reichw.

Francolinus shelleyi var. *trothæ* Reichw. Vög. Afr. i. 1901, p. 490: Ugalla, Tanganyika Territory.

This race, which is apparently described from a single

specimen, is stated to have, among other distinctions, the red-brown spots on the crop and sides darker, and to be greyer on the back. I have seen no material from Tanganyika Territory.

Specimens. None examined.

Range. Ugalla, and possibly elsewhere in Tanganyika Territory.

10 c. **Francolinus shelleyi whytei** Neum.

Francolinus whytei Neum. Bull. B. O. C. xxi. 1908, p. 76 : Nyika Plateau, Nyasaland.

Possibly a high-ground race of *F. shelleyi*, equally possibly a full species. Barring of underside reduced to narrow V-like markings; throat buff, not white. Wing : ♀ 162.

Specimens 1. Brit. Mus. 1 (type).

Range. Nyika Plateau of Nyasaland. "Bare ridges of short grass at high elevations."

Note.—There is a bird in the Tring Museum from Mt. Milanji which may be of this race, but which is very dark and with a larger bill. It is more than possible that high ground in Rhodesia may produce a bird of this type as well. I am inclined to think that these birds will prove to be specifically distinct from the low-ground *F. shelleyi*.

11. **Francolinus elgonensis** O.-Grant.

Francolinus elgonensis Ogilvie-Grant, Ibis, 1891, p. 126 : Mt. Elgon.

Possibly allied to *F. shelleyi*, but with the under surface russet-brown, and with the barring narrow and obsolete, often brown instead of black. Feathers of crown dark with rufous tips. Wings : ♂ 178-183; ♀ 176.

Specimens 6. Brit. Mus. 3 (type). Sir F. Jackson 3.

Range. Mt. Elgon, between 7700 and 1100 ft.

12 a. **Francolinus levailanti levailanti** (Valenc.).

Perdix levailanti Valenc. Dict. Sci. Nat. xxxviii. 1825, p. 441 : Cape.

Perdic levaillantoides Smith, Rep. Exp. Centr. Afr. 1836, p. 55: "Country towards sources of Orange River."

Underside ochreous-buff, breast and side feathers blotched with red, but never with black. Wings: ♂ 165-175; ♀ 162-173.

Specimens 38. Brit. Mus. 31. Tring 6. S. R. Clarke 1.
Range. Cape Colony, Transvaal, Natal, etc.

12 B. *Francolinus levaillanti benguellensis* Neum.

Francolinus levaillanti benquellensis Neum. Bull. B. O. C. xxi. 1908, p. 44: Cuima, Benguella.

Smaller and paler than the typical race and with the red blotches on the feathers of the underside replaced by black ones. Wing: ♀ 157.

Specimens 1. Tring 1 (type).

Range. Benguella.

12 C. *Francolinus levaillanti crawshayi* O.-Grant.

Francolinus crawshayi Ogilvie-Grant, Ibis, 1896, p. 482: Nyika Plateau, Nyasaland.

Like *F. l. levaillanti*, but whiter on the lower throat and paler on the belly, which has black or very dark brown blotches; not unlike *F. l. benguellensis*, but with a whiter throat and a redder crop. Wing: ♂ 166.

Specimens 1. Brit. Mus. 1 (type).

Range. Nyika Plateau, Nyasaland, at 7000 ft.

12 D. *Francolinus levaillanti mulemæ* O.-Grant.

Francolinus mulemæ Ogilvie-Grant, Bull. B. O. C. xiv. 1903, p. 30: Mulema, Uganda.

Francolinus adolji-frederici Reichw. Orn. Monats. 1908, p. 48: N.E. Ruanda.

Very like the last race and possibly identical, but the lower throat-patch not so white and the spotting on the underside bolder. Wings: ♂ 164-173; ♀ 157-167.

Specimens 45. Brit. Mus. 14 (type). Sir F. Jackson 21. S. R. Clarke 6. Tring 3. Dr. Van Someren 1.

Range. Uganda and Ruanda.

12 E. *Fracolinus levaillanti kikuyuensis* O.-Grant.

Fracolinus kikuyuensis Ogilvie-Grant, Bull. B. O. C. vi. 1897, p. xxiii: "Kikuyu District" in error. The bird does not occur in Kikuyu and the type came from El Doret.

I am very doubtful as to the status of this bird. The difference between it and *F. l. mulemæ* is that the underside is strongly rufous and the throat-patch rufous all over. Dr. Van Someren, however, could never find this bird, and he showed me some absolutely typical specimens of *F. l. mulemæ* from the actual type-locality of this bird. It may therefore prove to be merely a rufous phase of *F. l. mulemæ*. Wings: ♂ 170-179.

Specimens 4. Brit. Mus. 1 (type). Sir F. Jackson 3.

Range. Nandi and Mau, Kenya Colony, at 7000-8000 ft.

13. *Fracolinus finschi* Boc.

Fracolinus finschi Bocage, Orn. Angola, 1881, p. 406: Benguella.

A distinct species probably allied to *F. levaillanti*. The whole of the black and white feathering of *F. levaillanti* is replaced by a delicate blue-grey, and this colour extends as a wash over most of the bird. Wing: ♂ 175.

Specimens 2. Tring 2.

Range. Benguella.

14 A. *Fracolinus gariensis gariensis* Smith.

Fracolinus gariensis Smith, Illustr. Zool. S. Afr. 1849, pls. 83, 84: "Source of Vaal River," i.e. Source of Caledon River in northern Basutoland.

The phases and races of *F. gariensis* are by no means clear, and a good deal more material is necessary, especially from Damaraland. To start with, in some specimens, and in both the types, the feathers of the underside have well-defined black margins, and such birds appear to be also the largest in size. The typical race is more richly coloured and more heavily spotted beneath than the other races. Wings: ♂ 160-175; ♀ 160-169.

Specimens 19. Brit. Mus. 16 (types). S. R. Clarke 2. Tring 1.

Range. Southern Transvaal and Orange Free State Province.*

14 b. *Francolinus gariensis pallidior* Neum.

Francolinus jugularis pallidior Neum. Bull. B. O. C. xxi. 1908, p. 45 : South of Cunene River, S.W. Africa.

Paler and more sparsely spotted on the underside than in the typical race. Wings : ♂ 167-176 ; ♀ 160-162.

Specimens 9. Tring 1 (type). Brit. Mus. 8.

Range. Damaraland, but to an unknown extent.

Note.—There are two birds from Tsumeb, S.W. Africa, in the British Museum, which are still paler in ground-colour and have the black feather-margins as in the types of *F. g. gariensis*. They have also a crop-patch of white feathers edged with black, in this respect and in ground-colour resembling the next race.

14 c. *Francolinus gariensis jugularis* Bütt.

Francolinus jugularis Büttikofer, Notes Leyden Mus. xi. 1889, pp. 76, 77, pl. iv. : Gambos, Southern Angola.

This is the palest race with a noticeable crop-patch of black-edged white feathers. The ranges of this and the last race are not clear. Of the four specimens examined, two from Catumbella are extremely pale and presumably typical, the other two, merely labelled 'Benguella,' are hardly, if at all, distinguishable from *F. g. pallidior*. It is quite within the bounds of possibility that *F. jugularis* is a different species to *F. gariensis*, and that a race of each inhabits the same areas. Wings of present race : ♂ 156-160 ; ♀ 147.

Specimens 4. Brit. Mus. 4.

Range. Gambos, and elsewhere in Angola ; limits unknown.*

15. *Francolinus adspersus* Waterh.

Francolinus adspersus Waterhouse, in Alexander's Exped. ii. 1838, p. 267 : Damaraland.

* See note at the end of the paper.

No races known. Wings : ♂ 177-187 ; ♀ 170-180.

Specimens 14. Brit. Mus. 8. Tring 6.

Range. Damaraland, southern Angola, and the Upper Zambesi.

16. *Francolinus capensis* (Gmel.).

Tetrao capensis Gmelin, Syst. Nat. i. 1788, p. 759 : Cape Colony.

Perdix clamator Temm. Fig. et Gall. iii. 1815, pp. 298, 717 : Cape.

Francolinus clamata Steph. in Shaw's Gen. Zool. 1819, p. 327 (misspelling of Temminck's name).

Perdix clamosus Less. Traité d'Orn. 1831, p. 504, pl. 87 : Cape.

No races known. Wings : ♂ 215-225 ; ♀ 192-212.

Specimens 14. Brit. Mus. 13. Tring 1.

Range. Cape Colony.

17 A. *Francolinus natalensis natalensis* Smith.

Francolinus natalensis Smith, S. Afr. Journ. (2) 1833, p. 48 : Natal.

Perdix lechoho Smith, Rep. Exp. Centr. Afr. 1836, p. 54 : Marikwa and Limpopo Rivers.

Above browner, below more thickly marked ; markings always black and white, or very dusky and white, in both sexes and at all ages. Wings : ♂ 183-185 ; ♀ 163-178.

Specimens 18. Brit. Mus. 13 (type). Tring 5.

Range. Natal, Swaziland, Transvaal.

17 B. *Francolinus natalensis neavei* Praed.

Francolinus natalensis neavei Praed, Bull. B. O. C. xl. 1920, p. 140 : East bank of Loangwa River.

Male slightly greyer above than in the typical race, below less thickly marked but markings bolder. Female very distinct, sparsely marked below as in the male, but markings brown, and with a brownish-rufous wash over all the underside. This is even more noticeable in the young, and

suggests affinities with the *F. hillebrandti* group, in which the sexes are very different. Wings: ♂ 165; ♀ 162.

Specimens 6. Brit. Mus. 6 (type).

Range. N.E. Rhodesia. Two young birds from the Kafue River also appear to belong to this race.

18. *Francolinus harwoodi* Blund. & Lovat.

Francolinus harwoodi Blundell & Lovat, Bull. B. O. C. x 1899, p. 22: Ahaia Fej, Shoa.

Probably most nearly allied to *F. natalensis* and somewhat reminiscent of that species in appearance. Only known from the type. Wing: ♂ 182.

Specimens 1. Brit. Mus. (type).

Range. Shoa.

19 A. *Francolinus bicalcaratus bicalaratus* (Linn.).

Tetrao bicalcaratus Linn. Syst. Nat. 12th ed. i. 1766, p. 277: Senegal.

Perdix senegalensis Bonn. Tabl. Enc. Méthod. i. 1791, p. 212, pl. 93: Senegal.

Perdix adansonii Temm. Pig. et Gall. iii. 1815, pp. 305, 717: Senegal (renaming).

Francolinus albiscapus Reichenbach, Handb. Gall. 1853, figs. 1753-4.

Somewhat paler, and less closely marked below. Wings: ♂ 167-187; ♀ 165-173.

Specimens 45. Brit. Mus. 28. Tring 17.

Range. Senegal, Gambia, Portuguese Guinea, Gold Coast Hinterland and possibly coast as well, Northern Nigeria.

19 B. *Francolinus bicalcaratus thornei* O.-Grant.

Francolinus thornei Ogilvie-Grant, Bull. B. O. C. xiii. 1899, p. 22: Sierra Leone.

Darker on the back than the typical race, and more densely-marked below. The type-specimen is abnormal and has no rufous at all below. Wings: ♂ 170-190; ♀ 164-177.

Specimens 22. Brit. Mus. 16 (type). Tring 6.

Range. Liberia and Sierra Leone.

19 C. *Francolinus bicalcaratus adamauæ* Neum.

Francolinus bicalcaratus adamauæ Neum. Orn. Monats. xxiii. 1915, p. 73: Adamaua, Cameroon.

For the distinctions of this race see Neumann's original description. There are no specimens available from the type-locality, except one at Tring, and the locality of that is doubtful; it does not appear to differ from the last race.

Specimens. None examined.

Note.—There are in the British Museum two specimens from the Manenguba Mts., Cameroon, which are more sparsely marked below than in *F. b. thornei*. Material from more localities in Cameroon would be of interest.

19 D. *Francolinus bicalcaratus ayesha* Hartert.

Francolinus bicalcaratus ayesha Hartert, Nov. Zool. xxiv. 1917, p. 291.

More rufous above than the typical race and more densely marked below. Wings: ♂ 190.

Specimens 2. Tring 1 (type). Brit. Mus. 1.

Range. Morocco.

20 A. *Francolinus icterorhynchus icterorhynchus* Heugl.

Francolinus icterorhynchus Heuglin, J. f. O. 1863, p. 275: Bongo River, Bahr el Ghazal.

? *Francolinus dybowskii* Oust. Natur. 1892, p. 232: Ubangi River.

Somewhat smaller, less heavily marked on the underside. Wings: ♂ 163–173; ♀ 156–169.

Specimens 13. Brit. Mus. 13.

Range. Bahr el Ghazal, and possibly the Upper Welle and Ubangi Rivers.

20 B. *Francolinus icterorhynchus emini* Neum.

Francolinus icterorhynchus emini Neum. Orn. Monats. 1907, p. 198: West of Lake Albert.

Francolinus grisescens Mearns, Smiths. Misc. Coll. lvi. 1911, No. 20, p. 3: Lokko Zegga, Lake Albert.

Larger, spotting on underside generally heavier and larger,

more stripes on the breast. Wings: ♂ 180-188; ♀ 169-175.

Specimens 33. Brit. Mus. 8. Sir F. Jackson 12. Tring 13.
Range. Uganda and the Lado Enclave.

21. *Francolinus ugandensis* Neum.

Francolinus ugandensis Neum. Orn. Monats. 1907, p. 199 :
Mondo, Uganda.

A bird of very doubtful status. It is like *F. i. emini*, but it has the red-brown markings on the underside of *F. clappertoni gedgei*. It may be a hybrid, or it may be merely a phase of *F. i. emini*. I do not for a moment think it is a true species, but I have no means of disproving that it is. Wing: ♂ 185.

Specimens 2. Tring 1 (type). Sir F. Jackson 1.

Range. Uganda.

22 A. *Francolinus clappertoni clappertoni* Child.

Francolinus clappertoni Children in Denham & Clapperton's Travels, Appendix xxi. 1826, p. 198 : Bornu.

Above pale and sandy, below well marked, the feathers with a brown centre on a buffish-white ground. Wings: ♂ 188-191; ♀ 173-182.

Specimens 17. Brit. Mus. 14 (type). Tring 3.

Range. Bornu to Kordofan.*

22 B. *Francolinus clappertoni*, subsp. 1.

Intermediate between the typical race and the next; above greyer, less brown, below feathers with a blackish-brown centre on a white ground. Wings: ♂ 189-195; ♀ 181.

Specimens 7. Brit. Mus. 6. S. R. Clarke 1.

Range. From the neighbourhood of El Duem, along the White Nile to Renk.*

22 C. *Francolinus clappertoni heuglini* Neum.

Francolinus clappertoni heuglini Neum. Orn. Monats. 1907, p. 199 : Meshra-el-Rek.

A good deal darker, above grey not brown, below feathers

* See note at the end of the paper.

with broader black-brown centres on a white or buffish-white ground. Wings: ♂ 183-191; ♀ 167-180.

Specimens 18. Brit. Mus. 18.

Range. From somewhere just north of Fashoda to the sudd region of the Upper White Nile Province and the eastern Bahr el Ghazal.

22 D. *Francolinus clappertoni*, subsp. 2.

Intermediate between *F. c. clappertoni* from the west, *F. c. heuglini* from the north, and *F. c. gedgei* from the south. Above browner than *F. c. heuglini* and not so grey, but not so dark as *F. c. gedgei*. Below much like the last race, but ground-colour possibly yellower, not so white. Wings: ♂ 183-191.

Specimens 6. Brit. Mus. 4. S. R. Clarke 2.

Range. From the sudd region to Uganda.

22 E. *Francolinus clappertoni gedgei* O.-Grant.

Francolinus gedgii Ogilvie-Grant, Ibis, 1891, p. 124: Plains at foot of Mt. Elgon.

Above very dark, but dark brown not dark grey, below as in the last race. Wing: ♂ 197.

Specimens 1. Brit. Mus. (type).

Range. Mt. Elgon district, and probably elsewhere in Uganda.

22 F. *Francolinus clappertoni sharpei* O.-Grant.

Francolinus sharpii Ogilvie-Grant, Ibis, 1892, p. 47: Bogosland, Abyssinia, etc.

The next two races form a group somewhat distinct from the other forms of *F. clappertoni*, and might be regarded as a distinct species. It is quite probable that they will prove to be so. Feathers of breast and throat harder looking and more cleanly cut, with a pale brown centre in a white-edged black V. Above browner with buffish-white edges to the feathers. Wings: ♂ 182-190; ♀ 169-177.

Specimens 30. Brit. Mus. 12 (type). Tring 17. S. R. Clarke 1.

Range. Bogosland and Abyssinia south to Lake Zwai.

22 G. *Francolinus clappertoni* königseggi Mad.

Francolinus königseggi Madarasz, Ann. Mus. Nat. Hung. xiii. 1915, p. 560 : Semsir, Dinder River.

I have seen no birds from the type-locality, nor is Madarasz's type available, so it is somewhat of a speculation when I assign Blue Nile birds to this race. They differ from *F. c. sharpei* by being slightly smaller, and the feathers of the chest have darker brown centres. Wings : ♂ 178-182 ; ♀ 168. It is quite probable that Madarasz's birds are more sharply distinct in these characters than the specimens examined, which are all from the Blue Nile.

Specimens 5. Brit. Mus. 5.

Range. The Sennar Province of the Sudan and possibly parts of Kassala.

23. *Francolinus nigrosquamatus* Neum.

Francolinus nigrosquamatus Neum. Orn. Monats. 1902, p. 8 : Middle Omo River.

Somewhat similar to *F. c. sharpei*, but feathers of chest and back with all the centres black and the feathering not giving such a squamate appearance. Small, and reminiscent of a very black *F. icterorhynchus*. Wing : ♀ 141.

Specimens 1. Tring (type).

Range. Middle reaches of the Omo River.

24. *Francolinus hartlaubi* Boc.

Francolinus hartlaubi Bocage, Journ. Sci. Lisbon, ii. 1869, p. 350 : Mossamedes.

From its description somewhat allied to the foregoing group, but no specimens are available.

Specimens. None examined.

Range. Angola.

25 A. *Francolinus hildebrandti hildebrandti* Cab.

Francolinus hildebrandti Cabanis, J. f. O. 1878, p. 206, pl. 4 : (Zanzibar?), Mombasa, and further inland.

? *Francolinus jischeri* Reichw. J. f. O. 1887, p. 51 : Ussere, Wembere Steppes, N.E. of Tabora.

Male dark and closely marked on the underside, spots

rounded. Female—which is in this group totally unlike the male—rich reddish brown, chest and under parts of uniform colour. Wings: ♂ 180–185; ♀ 167–180.

Specimens 10. Brit. Mus. 8. Tring 2.

Range. Kilimanjaro district and inland, limits unknown.

25 B. *Francolinus hildebrandti altumi* Fischer & Reichw.

Francolinus altumi Fischer & Reichw. J. f. O. 1884, p. 179, pl. 2: Naivasha, Kenya Colony.

Slightly larger, male darker above than in the typical race, female paler below and greyer above, chest distinctly spotted. Some specimens from Narossara and the southern parts of Kenya Colony are intermediate with the last race. Wings: ♂ 190–198; ♀ 175–183.

Specimens 30. Brit. Mus. 5. Tring 15. Sir F. Jackson 9. S. R. Clarke 1.

Range. Highlands of Kenya Colony.

Note.—One bird, sexed male and with large spurs, from Narossara in Col. S. R. Clarke's collection, is in typical adult female plumage.

25 C. *Francolinus hildebrandti helleri* Mearns.

Francolinus hildebrandti helleri Mearns, P. U.S. Nat. Mus. xlviii. 1915, p. 381: Mt. Lololokwi, northern Kenya Colony.

This race from an isolated mountain in northern Kenya Colony is said to differ from *F. h. altumi*. Male redder brown above and with more white below, female more olive-brown, less greyish. Wings: ♂ 188; ♀ 170.

Specimens. None examined.

Range. Only known from the type-locality.

25 D. *Francolinus hildebrandti johnstoni* Shelley.

Francolinus johnstoni Shelley, Ibis, 1894, p. 24: Milanji Hills, Nyasaland.

Male as in the typical race but less thickly marked below, and the markings forming stripes not spots. Female quite distinct, duller and browner on the underside. Wings: ♂ 176–183; ♀ 166–174.

Specimens 11. Brit. Mus. 10 (type). Tring 1.

Range. Milanji District, Nyasaland, and apparently the southern inland half of Tanganyika Territory, at least birds from Mahenge are indistinguishable.

25 E. *Francolinus hildebrandti lindi* Praed.

Francolinus hildebrandti lindi Praed, Bull. B. O. C. xli. 1921, p. 111.

A well-defined race differing from all others in the great reduction of the black stripes on the underside, which in consequence presents a very white appearance. Female unknown. Wing: ♂ 174.

Specimens 1. Brit. Mus. (type).

Range. Coastal area of southern Tanganyika Territory.*

25 F. *Francolinus hildebrandti*, subsp. 1.

This race, though widely separated geographically, appears to be in every way identical with the typical form. It may be found later that this form occurs throughout the northern half of Tanganyika Territory, but at present no material is available. Wings: ♂ 180-188; ♀ 165-172.

Specimens 11. Brit. Mus. 11.

Range. Nyika Plateau of Northern Nyasaland.

26 A. *Francolinus squamatus squamatus* Cass.

Francolinus squamatus Cassin, Proc. Acad. Phil. viii. 1857, p. 321: Cape Lopez, Gaboon.

Francolinus petiti Bocage, Journ. Sci. Lisbon, vii. 1879, p. 68: Landana, Portuguese Congo.

Francolinus modestus Cabanis, J. f. O. 1889, p. 89: Chinchoxo, Portuguese Congo.

The typical race cannot be confused with any other and has up to the present been usually treated as a separate species. Feathers of underside without large dark centres and giving a squamate appearance. Wings: ♂ 178-195; ♀ 164-177.

Specimens 28. Brit. Mus. 15. Tring 13.

Range. Cameroon to Portuguese Congo.

* See note at the end of the paper.

26 B. *Francolinus squamatus schuetti*.

Francolinus schuetti Cabanis, J. f. O. 1880, p. 351 : Lunda, Angola-Congo boundary.

There are no specimens available, and in consequence it is impossible to define the range of this race, nor can it be determined whether or not it is separable from the Uganda and Kivu birds which are the nearest in point of locality. I propose here to limit this race to the typical locality only.

Specimens. None examined.

Range. Lunda, Angola-Congo boundary.

26 c. *Francolinus squamatus*, subsp. 1.

Two birds collected by Ansorge at Degama, Southern Nigeria, appear to be intermediate between *F. s. squamatus* and the other races, the dark centres of the feathers of the underside being comparatively small. Male very grey; female much mottled and vermiculated above and below. Wings: ♂ 176; ♀ 177.

Specimens 2. Tring 2.

Range. Degama, and probably elsewhere in Southern Nigeria.

26 D. *Francolinus squamatus zappeyi* Mearns.

Francolinus schuetti zappeyi Mearns, Smiths. Misc. Coll. lvi. 1911, No. 20, p. 4 : east shore of Victoria Nyanza.

Feathers of underside with dark centres, but the dark and light colour more contrasted. Wings: ♂ 170-185: ♀ 155-167.

Specimens 39. Brit. Mus. 16. Sir F. Jackson 13. Tring 9. S. R. Clarke 1.

Range. Uganda to the Kivu District and round the Lake to Kavirondo.

26 E. *Francolinus squamatus dowashanus?* Madl.

Francolinus dowashanus Madarasz, Ann. Mus. Nat. Hung. xiii. 1915, p. 394 : Ngare Dowash.

Unfortunately there appears to be no copy of the Ann. Mus. Nat. Hung. 1915 available in this country. I am

consequently unable to compare our birds, which are from the Loita Plains not far away, with Madarasz's description. In these, the dark feather centres and almost white margins offer a very strong contrast.

Specimens 3. S. R. Clarke 2. Dr. Van Someren 1.

Range. Kenya Colony—Tanganyika Territory boundary, south of the Loita Plains.

26 F. *Francolinus squamatus*, subsp. 2.

In colour close to *F. s. zappeji*, but distinctly larger. Apparently confined to high ground. Wings: ♂ 192–198.

Specimens 5. Sir F. Jackson 3. Dr. Van Someren 2.

Range. Mau, Ravine, Laikipia, etc., in Kenya Colony.

26 G. *Francolinus squamatus maranensis* Mearns.

Francolinus schuetti maranensis Mearns, Smiths. Misc. Coll. lvi. 1910, No. 14, p. 1: Kilimanjaro.

Francolinus schuetti kapitensis Mearns, Smiths. Misc. Coll. lvi. 1910, No. 14, p. 2: Juja, Kenya Colony.

Francolinus schuetti keniensis Mearns, Smiths. Misc. Coll. lvi. 1910, No. 14, p. 2: Nyeri, Kenya Colony.

This is a duller duskier race in which the colours of the feathers of the underside do not contrast but coalesce. I can in no way separate Kilimanjaro specimens from those of Kenya or of the Athi Plains near Juja. Wings: ♂ 175–195: ♀ 163–180.

Specimens 24. Brit. Mus. 12. Tring 10. S. R. Clarke 1. Sir F. Jackson 1.

Range. Kilimanjaro, Kikuyu, Fort Hall, Aberdare Mts., Kenya, Solai, etc.

Note.—I am here compelled to state my most emphatic opinion that Mearns's specimens did not justify him in attempting anything like the close subdivision he adopted in dealing with this species. His distinctions when analysed are mostly attributable to age or sex. It is with regret that I am forced to this conclusion, but I have no doubt that more material will bring ornithologists to the same view.

26 H. *Francolinus squamatus*, subsp. 3.

Two birds from Lake Zwai in southern Abyssinia seem somewhat distinct. They are very pale on the underside, and above they are mottled with a good deal of grey edging to the feathers. More material would be of interest.

Wings : ♀ 173-175.

Specimens 2. Brit. Mus. 1. Tring 1.

Range. Lake Zwai, southern Abyssinia.

27 A. *Francolinus ahantensis ahantensis* Temm.

Francolinus ahantensis Temm. Bijdr. tot de Dierk. i. 1854, p. 49, pl. 14 : Ahanta, Gold Coast.

This species is allied to *F. squamatus*, and the race of it which occurs in Abyssinia shows decidedly intermediate features. This, the typical race, is greyer and more distinctly marked. Wings : ♂ 176-192 ; ♀ 167-173.

Specimens 15. Brit. Mus. 13. Tring 2.

Range. Gold Coast, Sierra Leone, Portuguese Guinea, Gambia, etc.

27 B. *Francolinus ahantensis tetraoninus* Blund. & Lovat.

Francolinus tetraoninus Blundell & Lovat, Bull. B. O. C. x. 1899, p. 22 : Mendi, N.W. Abyssinia.

Somewhat intermediate in appearance between the last race and the eastern races of *F. squamatus*. Breast-feathers with narrow whitish sides, giving a striped appearance. Above much mottled but not so grey as the last race. Wing : ♀ 170.

Specimens 1. Brit. Mus. (type).

Range. North-western Abyssinia.

28. *Francolinus camerunensis* Alex.

Francolinus camerunensis Alexander, Bull. B. O. C. xxv. 1909, p. 12 : Cameroon Mountain.

In spite of what has been written to the contrary, it appears that the sexes of this species are alike, thus justifying Mr. Bannerman's views (*cf.* Ibis, 1915, p. 481). No known races. Wings : ♂ 182 ; ♀ 164-178.

Specimens 4. Brit. Mus. 4 (type).

Range. Cameroon Mountain.

29. *Fracolinus griseostriatus* O.-Grant.

Fracolinus griseostriatus Ogilvie-Grant, Ibis, 1890, p. 349, pl. 10 : Quanza River.

No known races. Wings : ♂ 150-168 ; ♀ 151-158.

Specimens 13. Brit. Mus. 8 (type). 'Tring 5.

Range. Angola.

30. *Fracolinus nobilis* Reichw.

Fracolinus nobilis Reichw. Orn. Monats. xvi. 1908, p. 81 : Wirunga Volcanoes, Kivu District.

No known races.

Specimens. None examined.

Range. Kivu District.

31. *Fracolinus jacksoni* O.-Grant.

Fracolinus jacksoni Ogilvie-Grant, Ibis, 1891, p. 123 : Mianzini, Kenya Colony.

No known races. Wings : ♂ 220-230 ; ♀ 201-212.

Specimens 21. Brit. Mus. 12 (type). Sir F. Jackson 5. 'Tring 3. S. R. Clarke 1.

Range. Highlands of Kenya Colony, Kikuyu, Aberdare Mts., Kenya, Naivasha, Laikipia, etc.

32 A. *Fracolinus erckeli erckeli* (Rüpp.).

Perdix erckeli Rüpp. Neue Wirb. 1835, p. 12 : Taranta Mts., N.E. Abyssinia.

The typical race is darker, browner, and more richly coloured. Wings : ♂ 223-231 ; ♀ 191-211.

Specimens 29. Brit. Mus. 19. 'Tring 8. S. R. Clarke 2.

Range. Eastern, southern, and central Abyssinia.

32 B. *Fracolinus erckeli*, subsp. 1.

An intermediate race, geographically and in appearance, between the typical race and the next. Hardly distinct enough from either to justify naming. Wings : ♂ 228 ; ♀ 195-209.

Specimens 5. 'Tring 5.

Range. Eritrea.

32 c. *Francolinus erckeli pentoni* Praed.

Francolinus erckeli pentoni Praed, Bull. B. O. C. xl. 1920, p. 141 : Erkowit.

Considerably paler and greyer. Wings : ♂ 228-233 ; ♀ 196-211.

Specimens 16. Brit. Mus. 13 (type). Tring 3.

Range. The neighbourhood of Erkowit in the Red Sea Province of the Sudan.

NOTE.—Since this paper was written, I have had the opportunity of glancing through the later numbers of the 'Journal für Ornithologie' which were not available to me before, and I note three new *Francolins* described therein. The first, *Francolinus tschadensis* Reichw. J. f. O. 1919, p. 334, from the Lake Chad District, is a race of *F. clappertoni* which corresponds in description with the bird I call *F. clappertoni*, subsp. 1, from the White Nile between El Duem and Renk. It may well prove to be a westward extension of this race along the edge of the area of greater rainfall.

The second, *Francolinus grotei* Reichw. J. f. O. 1919, p. 334 : Mikindani, is almost undoubtedly the bird I have recently described as *Francolinus hildebrandti lindi*, Bull. B. O. C. xli. 1921, p. 111. The description does not tally exactly with my single specimen, but I have little doubt it is the same and that Reichenow's name must stand.

The third is *Francolinus gariiepensis ludwigi* O. Neumann, J. f. O. 1920, p. 79 : Middelburg, Transvaal. This appears from its description to be a well-marked race, but I have no specimens available at the moment from the northern Transvaal. A single bird from near Vryburg is distinctly paler and greyer on the crop feathers than typical examples.